

Patent Claims

1. Method for processing a digitalized image with picture elements that contain an encoding information,

a) whereby the image is at least partially divided into image blocks;

5 b) whereby an appertaining image block is respectively subdivided into at least two appertaining image sub-blocks;

characterized in that the processing of the image is implemented such that a first value, a second value and a third value are respectively allocated to at least one image sub-block, whereby the first value and the second value describe the relative position
10 of the appertaining image block with respect to the image and the third value describes the relative position of the appertaining image sub-block with respect to the appertaining image block.

2. Method according to claim 1, whereby the appertaining image block is subdivided into a plurality of appertaining image sub-blocks.

15 3. Method according to claim 1 or 2, whereby the first value, the second value and the third value are respectively allocated to each appertaining image sub-block.

4. Method according to one of the claims 1 through 3, whereby the image blocks are arranged in columns and rows and/or column numbers are assigned to the
20 columns and row numbers are assigned to the rows.

5. Method according to claim 4, whereby the first value of the appertaining image sub-block is the row number of the appertaining image block and the second value of the appertaining image sub-block is the column number of the appertaining image block.

25 6. Method according to one of the claims 1 through 5, whereby the appertaining image sub-blocks exhibit a different shape than the appertaining image block.

7. Method according to one of the claims 1 through 6, whereby the image sub-blocks comprise a triangular shape.

30 8. Method according to claim 7, whereby the triangular shape comprises a right angle.

9. Method according to one of the claims 1 through 8, whereby the appertaining image sub-blocks are modified such that the respective position of an appertaining image sub-block with respect to the appertaining image block is respectively identical.

5 10. Method according to one of the claims 1 through 9 utilized in the framework of an encoding of the image.

11. Method according to claim 10, whereby the image sub-blocks are encoded upon employment of the encoding information and/or upon employment of the first value, the second value and the third value with a shape-adaptive
10 transformation encoding.

12. Method according to claim 11, whereby a shape-adaptive Discrete Cosine Transformation (DCT) is utilized for the encoding.

13. Method according to claim 12, whereby a Shape-Adaptive Discrete Cosine Transformation (SA-DCT) is utilized for the encoding.

15 14. Method according to claim 13, whereby a Triangle-Adaptive Discrete Cosine Transformation (TA-DCT) is utilized for the encoding.

15. Method according to one of the claims 1 through 9 utilized in the framework of a decoding of the image.

16. Method according to claim 15, whereby an inverse shape-adaptive
20 Discrete Cosine Transformation (DCT) is utilized for the decoding.

17. Method according to claim 16, whereby an inverse Shape-Adaptive Discrete Cosine Transformation (SA-DCT) is utilized for the decoding.

18. Method according to claim 17, whereby an inverse Triangle-Adaptive Discrete Cosine Transformation (TA-DCT) is utilized for the decoding.

25 19. Method according to one of the claims 1 through 18, whereby the image at least partly comprises triangular structure maps.

20. Arrangement for processing a digitalized image with picture elements that contain an encoding information, whereby a processor is provided that is configured such that the following method steps can be implemented:

30 a) the image is at least partially divided into image blocks;

- b) an appertaining image block is respectively subdivided into at least two appertaining image sub-blocks;

characterized in that the processing of the image is implemented such that a first value, a second value and a third value are respectively allocated to at least one image sub-block, whereby the first value and the second value describe the relative position of the appertaining image block with respect to the image and the third value describes the relative position of the appertaining image sub-block with respect to the appertaining image block.

21. Arrangement according to claim 20, whereby the appertaining image block can be subdivided into a plurality of appertaining image sub-blocks.

22. Arrangement according to claim 20 or 21, whereby the respective first value and the respective second value and the respective third value can be allocated to each appertaining image sub-block.

23. Arrangement according to one of the claims 20 through 22 that can be utilized in the framework of an encoding of the image.

24. Arrangement according to claim 23, whereby a shape-adaptive Discrete Cosine Transformation (DCT) can be utilized for the encoding.

25. Arrangement according to claim 24, whereby an inverse Triangle-Adaptive Discrete Cosine Transformation (TA-DCT) can be utilized for the encoding.

26. Arrangement according to one of the claims 20 through 25 that can be utilized in the framework of a decoding of the image.

27. Arrangement according to claim 26, whereby an inverse shape-adaptive Discrete Cosine Transformation (DCT) can be utilized for the decoding.

28. Arrangement according to claim 27, whereby an inverse Triangle-Adaptive Discrete Cosine Transformation (TA-DCT) can be utilized for the decoding.